

ABSTRACT OF THE DISCLOSURE

[37] A dual membrane, single cavity MEMS Fabry-Perot filter has a cavity that is defined between two mirror structures that are located on separate MEMS membranes. This configuration can yield a number of advantages. First, the membranes will be typically subject to the same mechanical vibrations, thus, will vibrate together. This vibration, however, will be rejected as common mode, however. Moreover, since the membranes will move in opposed directions in the gravitational field, the dual membrane device is insulated against passband shifts resulting from changes in orientation in the gravitational field. Finally, since each membrane can now be deflected separately, the scanning range is effectively doubled without increases in the size of the electrostatic cavities.